

# National Weather Service Storm Data and Unusual Weather Phenomena



April 1997 Time Local Path Length Path Number of Estimated Width Damage Persons **CONNECTICUT**, Northeast Hartford - Tolland - Windham CTZ002>004 0000EST 1M**Heavy Snow** 0900EST CTZ002>004 Hartford - Tolland - Windham 0000EST Strong Wind 01 0900EST A low pressure system which formed off the New Jersey coast during the early morning hours of March 31st intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island. This system retreated to the south during the early morning hours of April 1st, pulling in cold air from the north. The center then moved slowly eastward Heavy snow and strong winds produced near-blizzard conditions across the area during the early morning hours of April 1st. Snowfall totals of 12 to 21 inches were reported. Some totals included: Putnam, 21 inches; Union, 18.5 inches; and Mansfield, 16 inches. About 98,000 electric customers lost power statewide when the heavy, wet snow knocked down tree limbs and power lines. Most of the estimated dollar damage was from snow removal and restoration of power/removal of debris. **CTZ002** Hartford 0700EST 1000EST Flood Minor flooding occurred along the Connecticut River in Hartford as a result of the meltdown of record snowfall from the "Blizzard of '97" which occurred on March 31st-April 1st. A snow accumulation of 2 to 3 feet melted rapidly during the following days. By April 8th, the Connecticut River reached flood stage of 16 feet at Hartford at 9 AM and later reached a crest of 18.2 feet at 4 AM on April 10th. The river dropped below flood stage at 11 AM on the 11th. No significant damage was reported. **CTZ002** Hartford 1600EST 0 0 Flood 20 23 Minor flooding occurred along the Connecticut River in Hartford from April 20th through the 23rd. The river reached flood stage of 16 feet at Hartford at 5 PM on the 20th and crested at 17.1 feet at 6 PM on the 21st. It then fell below flood stage at 11 PM on the 23rd. No significant damage was reported. **MASSACHUSETTS, Central and East** MAZ002>022 Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk -Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern **Bristol - Southern Plymouth - Barnstable** 10M Heavy Snow MAZ002>024 Western Franklin - Eastern Franklin - Northern Worcester - Western Middlesex - Western Essex - Eastern Essex - Western Hampshire - Western Hampden - Eastern Hampshire - Eastern Hampden - Southern Worcester - Western Norfolk -Southeast Middlesex - Suffolk - Eastern Norfolk - Northern Bristol - Western Plymouth - Eastern Plymouth - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket 01 A low pressure system which formed off the New Jersey coast during the early morning hours of March 31st intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island. This system retreated to the south during the early morning hours of April 1st, pulling in cold air from the north. The center then moved slowly eastward. Heavy snow and strong winds produced blizzard or near-blizzard conditions across most of Massachusetts, with the exception of the Islands of Nantucket and Martha's Vineyard. Northeast winds gusting to 30 to 50 mph were reported. Snowfall totals of 20 to 30 inches were common from a Plymouth to Taunton line northwestward to the Berkshires. Maximum totals of more than 30 inches were reported in southeast

Worcester County, where Milford had a phenomenal total of 36 inches. The storm produced the greatest snowfall on record for any



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Time Local/ Length Width Persons Damage

Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

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### **MASSACHUSETTS, Central and East**

storm at Worcester Municipal Airport, with a total of 33 inches. It was the third greatest snowfall on record at Boston with an accumulation of 25.4 inches. The Blue Hill Observatory in Milton recorded 29 inches in 24 hours, establishing an all-time record and the storm total there of 30 inches made it the third greatest snowstorm on record.

Two to five inches of liquid equivalent precipitation made this snowfall extremely heavy and difficult to remove. The weight of the snow resulted in severe damage to trees and power lines and up to 750,000 electric customers lost power statewide during the height of the storm in the early morning hours of April 1st. Whole towns were without power for up to three days after the storm. More then 100 power crews were brought in from states outside of New England to help restore power. The governor of the Commonwealth of Massachusetts declared a state of emergency, The City of Boston, which recorded 25.4 inches of snow, was paralyzed for two days and the National Guard was called in to help with snow removal. Boston's Logan International Airport was closed for one day.

A porch roof collapsed under the weight of the heavy snow in the Dorchester section of Boston, injuring one person. Several roofs collapsed in communities south of Boston, including the roof of a warehouse in Randolph, where damage was estimated at \$20,000. A roof collapse was reported at an automobile dealership in Norwell. Ten greenhouses buckled under the weight of the snow in Randolph. At least four plastic, inflatable domes covering indoor tennis courts in Boston collapsed under the weight of the heavy snow. Dozens more were damaged across the state. Hundreds of cars and trailer trucks were abandoned on state highways, making plowing operations very difficult. More than 40 trailer trucks were stuck on Route 128 between Newton and Canton. The cost of snow removal was estimated to cost the state highway department between \$6,000,000 and \$7,000,000.

On Cape Cod, snowfall ranged from about 15 inches near the Cape Cod Canal to about 6 inches of slushy accumulation at Chatham. Nantucket Island received less than 1 inch of snow.

Minor coastal flooding was reported at Marshfield and Revere

MAZ005>007-013>021-

 $Western\ Middlesex\ -\ Western\ Essex\ -\ Western\ Norfolk\ -\ Southeast\ Middlesex\ -\ Suffolk\ -\ Eastern\ Norfolk\ -\ Northern\ Bristol\ -\ Western\ Plymouth\ -\ Eastern\ Plymouth\ -\ Southern\ Bristol\ -\ Southern\ Plymouth\ -\ Dukes$ 

19 0000EST 1200EST (

Strong Wind

MAZ016-020>022-022>024 Eastern Norfolk - Southern Bristol - Southern Plymouth - Barnstable - Dukes - Nantucket

19 0615EST 0900EST 0 100.0K

High Wind (G84)

MAZ024

Nantucket

9 0900EST 1300EST 0

Coastal Flood

An intense low pressure system moved just to the south of Nantucket and produced northeast to north winds gusting to hurricane force on Cape Cod and Nantucket. Moderate coastal flooding occurred on Nantucket with minor coastal flooding on Cape Cod. A low barometric pressure reading of 28.75 inches was reported at Nantucket. A peak gust to 97 mph was reported at Otis Air Force Base in Falmouth on Cape Cod, with sustained speeds of 46 mph. Sustained wind to 55 mph with gusts to 87 mph was reported from Nantucket. Some other peak gusts included: 67 mph in Provincetown, 62 mph in Pocasset, 60 mph in West Dennis, and 60 mph in West Tisbury on Martha's Vineyard. The high winds knocked down tree limbs and caused scattered power outages across Cape Cod. In Falmouth, at Otis Air Force Base, telephone poles were reported snapped in half by winds that gusted to 97 mph. Widespread outages were reported in several towns. A flag pole snapped in Barnstable and a 100-foot fishing boat anchored in Provincetown was driven aground. On Nantucket, officials evacuated Codfish Park in Siasconset on the east end of the island, where a large wing of one house was washed out to sea due to beach erosion. (This was in an area that has received much beach erosion over the past several years). In Chatham, one coastal road was flooded and officials evacuated a cottage after the rising tide threatened it. In Eastham, flooding closed two roads and one family left their home due to the threat of flooding at high tide, which occurred during the late morning. High winds also occurred along coastal areas of Buzzards Bay, where Onset had a gust to 60 mph and Marion reported sustained winds of 40 to 50 mph with a peak gust to 71 mph. Strong northeast winds occurred over much of the rest of Massachusetts and high winds were confined to the highest elevations. Blue Hill Observatory in Milton, at an elevation of around 600 feet, reported a peak gust to 65 mph. In Marshfield, there was some minor coastal flooding as several roads were closed in the Brant Rock section of town and 15 to 20 foot waves crashed ashore. Minor coastal flooding occurred on the water front in Plymouth. In the Boston area, Winthrop had a peak gust to 56 mph and north of Boston, Swampscott had a gust to 55 mph with 51 mph at Gloucester on Cape Ann. Rainfall totals for three days from April 17th to 19th ranged from 1.5 to 3 inches.



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### **NEW HAMPSHIRE, Southern**

NHZ011>012 Cheshire - Hillsborough

01 0000EST 0 0 Heavy Snow

A low pressure system which formed off the New Jersey coast during the early morning hours of March 31st intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island. This system retreated to the south during the early morning hours of April 1st, pulling in cold air from the north. The center then moved slowly eastward. Heavy snow and strong winds produced near blizzard conditions during the early morning hours of April 1st. Heavy snow generally accumulated between 12 and 20 inches across the area. An isolated maximum amount of 26 inches was reported from Wilton. Some other totals included: Francestown, 20 inches; Weare, 19.6 inches; Nashua, 15 inches; Manchester, 14 inches; and Keene, 12 inches. Travel was very difficult during the storm, but road conditions improved rapidly after snow ended by late morning. Power outages affected only about 6,000 electric customers statewide in New Hampshire.

NHZ012 Hillsborough

Minor flooding occurred along the Merrimack River. The River reached flood stage of 11 feet at Goffs Falls at 8 AM on the 20th, reached a crest of 11.3 feet during the afternoon at 4 PM, then receded below flood stage at 11 PM that evening.

### RHODE ISLAND

RIZ001>007 Northwest Providence - Southeast Providence - Western Kent - Eastern Kent - Bristol - Washington - Newport

01 0000EST 0 0 700K Heavy Snow

 $RIZ001 > 007 \\ Northwest\ Providence\ -\ Southeast\ Providence\ -\ Western\ Kent\ -\ Eastern\ Kent\ -\ Bristol\ -\ Washington\ -\ Newport$ 

01 0000EST 0 0 Strong Wind 1200EST

A low pressure system which formed off the New Jersey coast during the early morning hours of March 31st intensified rapidly as it moved to a position 60 miles south of Newport, Rhode Island. This system retreated to the south during the early morning hours of April 1st, pulling in cold air from the north. The center then moved slowly eastward. Heavy snow and strong winds produced blizzard and near-blizzard conditions across most of Rhode Island during the early morning hours on April 1st.

Snowfall accumulations set all-time records for April across most of the state, with amounts ranging from around 4 inches along the south coast to nearly 30 inches along the Massachusetts border in the extreme northern portion of the state. Some totals included: Burrillville, 30.5 inches; West Cranston, Cumberland, and North Foster, 24 inches; downtown Providence, 19.5 inches; and Warwick, 18 inches, a new all-time record for the month of April.

The heavy, wet snow made snow removal extremely difficult and highway travel was just about impossible during the height of the storm. Over a thousand tree limbs and some trees were reported down in Providence and some streets were initially left unplowed due to fallen tree limbs and wires. Schools were closed for two days. Up to 55,000 electric customers were without power at the height of the storm early on April 1st. Most of the estimated dollar damage was due to snow removal and power restoration.